Appl. No. <u>10/077,072</u> Amdt. dated <u>08/19/2003</u>

Reply to Office action of <u>06/19/2003</u>

This listing of claims will replace all prior versions, and the listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A plasma processing chamber configured to generate a confined plasma, comprising:

a first powered electrode configured to receive a workpiece, said first powered electrode having a first electrode area;

a power generator operatively coupled to said first powered electrode and configured to communicate power to said first powered electrode;

a second electrode disposed at a distance from said first powered electrode, said first powered electrode and said second electrode configured to convert said gas to a plasma, said second electrode having a second electrode area;

a plurality of confinement rings surrounding a volume within which said confined plasma is substantially disposed; and

a ground extension adjacent said first powered electrode and surrounding said first powered electrode within the volume.

Claim 2 (previously amended): The plasma processing chamber of claim 1 wherein said plurality of confinement rings surround said first powered electrode and said second electrode.

Claim 3 (original): The plasma processing chamber of claim 1 wherein said ground extension further comprises a protrusion.

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Claim 4 (original): The plasma processing chamber of claim 3 wherein said ground extension surrounds said first power electrode.

Claim 5 (original): The plasma processing chamber of claim 4 wherein said ground extension is configured to drain charge from said plasma.

Claim 6 (original): The plasma processing chamber of claim 1 wherein said ground extension surrounds said first power electrode.

Claim 7 (original): The plasma processing chamber of claim 6 wherein said ground extension is configured to drain charge from said plasma.

Claim 8 (original): The plasma processing chamber of claim 1 further comprising an electrode area ratio of greater than 1.0, said area ratio defined by dividing said second electrode area by said first electrode area, such that said second electrode area is greater than said first electrode area.

Claim 9 (original): The plasma processing chamber of claim 1 wherein said second electrode further comprises a notch, said notch configured to increase said second electrode area.

Claim 10 (original): The plasma processing chamber of claim 9 wherein said ground extension surrounds said first power electrode.

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Claim 11 (original): The plasma processing chamber of claim 10 wherein said ground extension is configured to drain charge from said plasma.

Claim 12 (original): The plasma processing chamber of claim 11 further comprising an area ratio of greater than 1.0, said area ratio defined by dividing said second electrode surface area by said first electrode area, such that said second electrode surface area is greater than said first electrode area.

Claim 13 (currently amended): A plasma processing chamber configured to generate a confined plasma, comprising:

a first powered electrode configured to receive a workpiece, said first powered electrode having a first electrode area;

a power generator operatively coupled to said first powered electrode and configured to communicate power to said first powered electrode;

a second electrode disposed at a distance from said first powered electrode, said first powered electrode and said second electrode configured to convert said gas to a plasma, said second electrode having a second electrode area;

a ground extension adjacent said first powered electrode and surrounding said first powered electrode, said ground extension separated from said first powered electrode by a dielectric; and

a plurality of confinement rings surrounding said first powered electrode, and said second electrode and defining a volume within which the confined plasma is substantially disposed; and

a ground extension adjacent said first powered electrode, and surrounding said first powered electrode within the volume confined by the plurality of confinement rings.

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Claim 14 (original): The plasma processing chamber of claim 13, wherein said ground extension is configured to drain charge from said plasma.

Claim 15 (original): The plasma processing chamber of claim 14 further comprising an area ratio of greater than 1.0, said area ratio defined by said second electrode surface area to said first electrode area, such that said second electrode surface area is greater than said first electrode area.

Claim 16 (original): The plasma processing chamber of claim 15 wherein said ground extension includes a protrusion.

Claim 17 (original): The plasma processing chamber of claim 16 wherein said second electrode further comprises a notch, said notch configured to increase said second electrode area.

Claim 18 (currently amended): A method for generating a confined plasma in a plasma processing chamber including a plurality of confinement rings surrounding a volume within which said confined plasma is substantially disposed, said method comprising:

receiving a gas in said plasma processing chamber;

causing a first electrode to receive a workpiece, said first electrode operatively coupled to a power supply;

causing a second electrode disposed at a distance from said first electrode to receive RF power from said first electrode, said second electrode having a second electrode area that is greater than said first electrode area;

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engaging a power supply to communicate RF power to said first electrode to generate a plasma; and

volume defined by the plurality of confinement rings to drain a plurality of charge from said plasma.

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Claim 19 (original): The method of claim 18 further comprising generating said confined plasma due in part to said plurality of confinement rings and said ground extension.

Claims 20-21 (canceled)

Claim 22 (new): The plasma processing chamber of claim 13, wherein said ground extension is separated from said first powered electrode by a dielectric.